

NPDES Permit No. IL0004057
Notice No. KPM:22111601.docx

Public Notice Beginning Date: **May 19, 2023**

Public Notice Ending Date: **June 20, 2023**

National Pollutant Discharge Elimination System (NPDES)
Permit Program

Draft Reissued NPDES Permit to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-0610

Name and Address of Discharger:

Dynegy Midwest Generation, LLC
1500 Eastport Plaza Dr.
Collinsville, IL 62234

Name and Address of Facility:

Dynegy Midwest Generation, LLC
Vermilion Power Plant
10188 East 2150 North Road
Oakwood, Illinois 61858
(Vermilion County)

The Illinois Environmental Protection Agency (IEPA) has made a tentative determination to issue a NPDES permit to discharge into the waters of the state and has prepared a draft permit and associated fact sheet for the above named discharger. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice/Fact Sheet. The last day comments will be received will be on the Public Notice period ending date unless a commentor demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the draft permit to the IEPA at the above address. Commentors shall provide his or her name and address and the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to those issues. Commentors may include a request for public hearing. Persons submitting comments and/or requests for public hearing shall also send a copy of such comments or requests to the permit applicant. The NPDES permit and notice number(s) must appear on each comment page.

The application, engineer's review notes including load limit calculations, Public Notice/Fact Sheet, draft permit, comments received, and other documents are available for inspection and may be copied at the IEPA between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 45 days before any public hearing. Response to comments will be provided when the final permit is issued. For further information, please call Keegan MacDonna at 217/782-0610.

The applicant is engaged in maintenance of a closed coal-fired steam electric generating facility (SIC 4911). Facility operations result in an intermittent discharge of stormwater runoff, a proposed intermittent discharge of ponded and subsurface free liquids associated with CCR surface impoundment closure activities, and a proposed discharge of groundwater collected by a future groundwater collection trench via Outfalls 001 and 003. Facility operations also result in an intermittent discharge of collected stormwater runoff overflow from the on-site reservoir via Outfall 002.

The following modifications are proposed:

1. Removal of Outfalls A01, B01, C01, A03, B03, and C03, as well as removal of all associated wastestreams.
2. Removal of wastestreams at Outfalls 001, 002, and 003 that no longer exist due to closure of the plant in 2011.
3. Removal of special conditions associated with the above-listed removed outfalls and wastestreams.

Application is made for existing discharges which are located in Vermilion County, Illinois. The following information identifies the discharge point, receiving stream and stream classifications:

<u>Outfall</u>	<u>Receiving Stream</u>	<u>Latitude</u>		<u>Longitude</u>		<u>Stream Classification</u>	<u>Integrity Rating</u>
001	Middle Fork Vermilion River	40° 11' 07"	North	87° 44' 37"	West	General Use	C
002	Middle Fork Vermilion River	40° 10' 23"	North	87° 44' 35"	West	General Use	C
003	Middle Fork Vermilion River	40° 11' 07"	North	87° 44' 37"	West	General Use	C

To assist you further in identifying the location of the discharge please see the attached map.

The stream segment, IL_BPK-07, receiving the discharge from Outfalls 001-003 is on the 2020/2022 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois Department of Natural Resources Publication – *Integrating Multiple Taxa in a Biological Stream Rating System*.

The following parameters have been identified as the pollutants causing impairment:

<u>Designated Use</u>	<u>Potential Cause</u>
Primary Contact Use	Fecal Coliform

The discharges from the facility shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
<u>Outfall 001:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Suspended Solids				15.0	30.0	35 IAC 304.124
Oil/Grease				15.0	20.0	40 CFR 423.12
Sulfates					2000	35 IAC 302.208
Boron				7.6	40.1	35 IAC 302.208
Iron (Total)				2.0	4.0	35 IAC 304.124
Ammonia						
(Mar. - May, Sept. - Oct.)				1.5	5.0	35 IAC 302.212
(Jun. – Aug.)				0.9	4.8	
(Nov. – Feb.)				2.7	4.2	
Mercury					12 ng/L*	35 IAC 302.208

*On a 12-month rolling average.

PARAMETER	LOAD LIMITS lbs/day		REGULATION	CONCENTRATION		REGULATION
	30 DAY AVERAGE	DAILY MAXIMUM		30 DAY AVERAGE	DAILY MAXIMUM	
<u>DAF (DMF)</u> <u>LIMITS mg/l</u>						
<u>Outfall 002:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Suspended Solids				15.0	30.0	35 IAC 304.124
Oil/Grease				15.0	20.0	40 CFR 423.12
<u>Outfall 003:</u>						
Flow (MGD)						
pH				6 – 9 s.u.		35 IAC 304.125
Total Suspended Solids				15.0	30.0	35 IAC 304.124
Oil/Grease				15.0	20.0	40 CFR 423.12
Sulfates					2000	35 IAC 302.208
Boron				7.6	40.1	35 IAC 302.208
Iron (Total)				2.0	4.0	35 IAC 304.124
Ammonia						
(Mar. - May, Sept. - Oct.)				1.5	5.0	35 IAC 302.212
(Jun. – Aug.)				0.9	4.8	
(Nov. – Feb.)				2.7	4.2	
Mercury					12 ng/L*	35 IAC 302.208

*On a 12-month rolling average.

Vermilion Power Plant, owned by Dynegy Midwest Generation, LLC (Dynegy), ceased power generation on November 1, 2011. The only active industrial activities at the site are the operation and maintenance of the facility's Coal Combustion Residual Surface Impoundments (CCRSIs). These CCRSIs include the North Ash Pond, the Old East Ash Pond, and the New East Ash Pond. Dynegy plans to close these CCRSIs under 35 Ill. Adm. Code Part 845. Before the impoundments can be closed, water contained in the impoundments including ponded and subsurface free liquids must first be removed. Dynegy has proposed the addition of these wastewaters as wastestreams at Outfalls 001 and 003. Dynegy also proposed the addition of discharges from a planned groundwater collection trench at the site, discharging through Outfalls 001 and 003. An antidegradation assessment performed by the Agency's Water Quality Standards Unit found that the addition of these wastestreams would result in the attainment of water quality standards in the receiving stream. A complete summary of the antidegradation assessment can be found on pages 5-9 of this Fact Sheet. The proposed wastestreams have been added to Outfalls 001 and 003 in the draft permit.

Due to closure of the power plant, several wastestreams no longer exist at the site. The following outfalls and their associated wastestreams have been removed from the permit:

Table 1. Outfalls removed from the permit and their associated wastestreams

Outfall	Associated Wastestreams
A01	Cooling Tower Blowdown
B01	Chemical Metal Cleaning Waste Treatment System Effluent
C01	Activated Carbon System Effluent
A03	Cooling Tower Blowdown
B03	Chemical Metal Cleaning Waste Treatment System Effluent
C03	Activated Carbon System Effluent

There has also been a significant reduction in wastestreams at the remaining outfalls at the facility. The remaining outfalls and the changes to their associated wastestreams are detailed below:

Table 2. Changes to wastestreams tributary to the remaining outfalls

Outfall	Previous Wastestreams	Current/Proposed Wastestreams
001	<ol style="list-style-type: none"> 1. Fly ash and bottom ash transport water 2. Ash hopper overflow 3. Demineralizer regenerant wastes 4. Water treatment clarifier sludge 5. Water filter backwash waste 6. Coal pile runoff 7. Area runoff 8. Non-chemical metal cleaning wastes 9. Boiler room and dust collector area floor drains 10. Pyrites from coal crushing 11. Chemical metal cleaning waste treatment system effluent 	<ol style="list-style-type: none"> 1. Stormwater runoff 2. Ponded and subsurface free liquids from CCR impoundment closure 3. Groundwater collection trench water
002	<ol style="list-style-type: none"> 1. Water pumped into the Make Up Water Reservoir from the Middle Fork Vermilion River 2. Area runoff 3. Boiler blowdown 4. Plant roof and floor drainage 5. Cooling tower basin drains and overflows 	<ol style="list-style-type: none"> 1. Stormwater runoff
003	<ol style="list-style-type: none"> 1. Fly ash and bottom ash transport water 2. Ash hopper overflow 3. Demineralizer regenerant wastes 4. Water treatment clarifier sludge 5. Water filter backwash waste 6. Coal pile runoff 7. Area runoff 8. Non-chemical metal cleaning wastes 9. Boiler room and dust collector area floor drains 10. Pyrites from coal crushing 11. Chemical metal cleaning waste treatment system effluent 	<ol style="list-style-type: none"> 1. Stormwater runoff 2. Ponded and subsurface free liquids from CCR impoundment closure 3. Groundwater collection trench water

The sampling frequencies at Outfalls 001, 002, and 003 have been updated to be consistent with permits previously issued for similar closed coal-fired power plants. Additionally, flow monitoring has been modified from continuous basis monitoring to a flow estimate due to the intermittent nature of the facility's discharges.

The following special conditions that were included in the most recent permit renewal (Permit No. IL0004057, Effective March 7, 2003) have been removed from the permit:

Table 3. A list of removed special conditions and justification for their removal from the permit

Special Condition	Justification
3	The plant is retired and chlorine is no longer used, and the cooling water pumps are no longer operational.
5	The plant is retired and the cooling towers are no longer operational.
6	The plant is retired and the intake pumps are no longer operational.
7	The permit no longer requires 24-hour composite samples at any of the remaining outfalls.
8	The permit no longer requires continuous pH monitoring at any of the remaining outfalls.
9	The plant is retired and the cooling towers are no longer operational.
13	Water quality standards for boron and sulfates have changed since the permit was last issued in 2003. Water quality based effluent limits for boron and sulfates are now applied at Outfalls 001 and 003 in the body of the permit instead of the special conditions. There is no water quality standard for total dissolved solids in the State of Illinois.
15	The plant is retired and no longer generates chemical metal cleaning waste.
17	The plant is retired and the discharges associated with Outfalls C01 and C03 no longer exist.
18	The plant is retired and the discharges associated with Outfalls C01 and C03 no longer exist.

The special conditions in the draft permit have been renumbered accordingly following removal of the conditions listed in Table 3.

Wastewaters referred to as “ponded free liquids” and “subsurface free liquids” are alternatively referred to as “unwaters” and “dewaters”, respectively. The terminology of “unwaters” and “dewaters” is used in the Antidegradation Assessment below.

All transformers containing PCBs have been removed from the site, and the facility is now free of PCBs.

Groundwater monitoring requirements under Special Condition 19 of the previous permit have been maintained in the draft permit. These groundwater monitoring requirements shall remain in the NPDES Permit as Special Condition 12 in the interim period between issuance of this permit and issuance of a construction/operating permit pursuant to 35 Ill. Adm. Code Part 845. Following issuance of a permit under Part 845, the NPDES permittee may request modification of the NPDES Permit to remove groundwater monitoring requirements, since they will already be required to perform monitoring under the Part 845 permit.

Cooling Water Intake Structure (CWIS) and 316(b) Requirements:

The CWIS is no longer in use due to the closure of the plant. Since there is no intake of surface water, the regulations found in Section 316(b) of the Clean Water Act no longer apply to this facility.

The following explain the conditions of the proposed permit:

The special conditions clarify flow monitoring and recording, pH, monitoring location, no PCBs, discharge monitoring report submission, re-opener clause, BAT/BCT for stormwater, modification of Standard Condition 11(a), modification of Standard Condition 11(b), mercury, metals monitoring, and groundwater monitoring.

Antidegradation Assessment NPDES Permit No. IL0004057

The closure plan submitted to IEPA on January 28, 2022 for the Dynergy Midwest Generation, LLC (DMG) Vermillion Power Plant (Site) Old East Ash Pond (OEAP) and North Ash Pond (NAP) sets forth a twelve-year schedule to acquire the applicable permits and complete the closure construction activities for closure by removal to an onsite landfill. The closure construction activities include removal of open water from the two ash ponds, referred to as “unwatering;” removal of pore water contained in ash-filled portions of a recovery trench; and complete removal of the CCR in the two impoundments. Removal of the water is necessary to begin removal of the CCR. Due to the large volume of water contained in the ash ponds and the schedule commitments, the preferred alternative to remove the water is to discharge it through a NPDES-permitted outfall to the Middle Fork Vermillion River (Middle Fork).

Unwaters and dewaters from the North Ash Pond will be discharged through the Secondary North Ash Pond via Outfall 001; dewaters from the Old East Ash Pond will be discharged through the Secondary North Ash Pond via Outfall 001 or the Secondary New East Ash Pond via Outfall 003; and unwaters and dewaters from the New East Ash Pond will be discharged through the Secondary New East Ash Pond via Outfall 003. Recovery trench groundwater will be routed to either the Secondary North Ash Pond or the Secondary New East Ash Pond and discharged via Outfall 001 and Outfall 003 respectively.

Discharging the dewaters and proposed recovery trench groundwater through the selected NPDES outfall would use existing

infrastructure and is consistent with the plant's previous normal operation. This alternative has been demonstrated to show no adverse impacts to surface waters. This alternative will also remove the waters in the shortest practicable time to comply with the closure plan schedule, while monitoring can confirm discharges conform to the rules. Discharging the waters through an existing NPDES outfall is DMG's preferred alternative.

Settlement in the Secondary Pond(s) could reduce the dissolved concentrations of certain pollutants such as iron, while carbon dioxide could be used to adjust pH to reach dischargeable limits. The pH will need to reach the permit limits. Closing if the ash ponds will eliminate contaminants being discharged, therefore loading will decrease in the long-term.

The information in this antidegradation assessment came from the August 2022 antidegradation report by Hanson Professional Services, Inc. titled "Antidegradation Assessment for Management of Waters from Closure of Ash Ponds-Update".

Identification and Characterization of the Affected Water Body.

The subject facility proposes to discharge to the Middle Fork Vermillion River at a point where 3.1 cfs of flow exists upstream of the outfall during critical 7Q10 low-flow conditions. The facility has intermittent flow. The Middle Fork Vermillion River is classified as a General Use Water. According to the 2008 IDNR document "Integrating Multiple Taxa in a Biological Stream Rating System", the Middle Fork Vermillion River is not a biologically significant stream at this location; however, it is rated a "C" stream using IDNR's integrity rating system at this location. The Middle Fork Vermillion River, Waterbody Segment, IL BPK-07, is listed on the 2020/2022 Illinois Integrated Water Quality Report and Section 303(d) List as impaired for primary contact use with potential cause given as fecal coliform. Aquatic life and aesthetic quality uses are fully supported. This segment of the Middle Fork Vermillion River is subject to enhanced dissolved oxygen standards.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

Hanson was provided analytical data from Ramboll and Geosyntec Consultants. The analytical data is provided to Hanson is from grab samples collected between March 2021 and August 2021. The analytical data is provided from the sampling of wells OED1 and ND3, which are in ash-filled portions of the ponds. Analytical data from groundwater monitoring wells MW07R, MW36 and MW40 covering the same time period were provided to characterize the proposed recovery trench. An additional round of groundwater data was collected in April 2022. Recovery trench groundwater will be routed to either the Secondary North Ash Pond or the Secondary New East Ash Pond and then to the Middle Fork via each secondary pond's respective NPDES outfall. The sampling results from the Middle Fork water samples SW1, SW2, SW3, SW4 and SW5 were collected to evaluate the receiving water that may be affected by the proposed discharges. The surface water samples SW-1 and SW-2 were collected on June 7 and samples SW-3 SW-4, and SW-5 were collected on July 9, 2021. All five samples were analyzed by Eurofins Scientific.

For instances where the analytical data provided for this report did not contain results for specific constituents included in the 2019 Antidegradation Assessment, Hanson utilized an average of the 2019 analytical results for the listed constituent. Teklab, Inc. (Teklab), with field oversight by Hanson, collected these water samples from the Site ash ponds and the Middle Fork on February 20-21, 2019, and March 25, 2019. The 2019 water samples were analyzed by Teklab for constituents approved by Illinois EPA in an email to DMG on October 11, 2016. Teklab is accredited by Illinois EPA to conduct the laboratory analysis for this assessment. The Teklab laboratory analytical reports were included in the June 2019 Antidegradation Assessment (Hanson 2019).

Table 2 from the August 2022 report by Hanson Professional Services, Inc. summarizes the water samples collected by Ramboll and Geosyntec Consultants in 2021 and 2022. Figure 1 shows the monitoring well and surface water sampling locations.

No new unwater samples were collected as part of this update. Therefore, Table 3 from the 2019 report has been included for reference.

Table 4 from the August 2022 report by Hanson Professional Services, Inc. summarizes the constituents analyzed and the analytical results of samples collected from ash-filled portions of the ponds (OED1 and ND3) to characterize waters that would be discharged during dewatering the ponds. The individual analytical results at each sample location were averaged for Sampling Point OED1 in the Old East Ash Pond. The representative average dewater concentrations of cadmium, lead, mercury, nickel, boron, sulfate and TSS exceeded the General Water Quality Standards; all other analytes were less than the General Water Quality Standards. It appears the TSS results collected the dewater samples for the 2019 Antidegradation Assessment were skewed high by the elevated TSS in one of two samples collected from ND3 in the North Ash Pond. If the highest TSS results are discarded, the adjusted average TSS concentrations are considered to be more representative of the proposed dewater discharge, however, concentrations are used in the calculation of pollutant load increases from the ash pond dewatering discharge described in section 3.3. TSS will need to meet the effluent standard.

Table 5 from the August 2022 report by Hanson Professional Services, Inc. summarizes the constituents analyzed and the analytical results of samples of the groundwater monitoring wells and the receiving waters. The samples collected from Monitoring Wells MW07R, MW36 and MW40 were selected to characterize groundwater that will be extracted and discharged from the proposed recovery trench. The analytical results at each sample location were averaged for evaluation in this antidegradation assessment. An

average of the 2019 analytical results from Monitoring Well MW08R were used when new analytical data was not provided for a specific constituent included in the 2019 Antidegradation Assessment. When all the individual results are averaged, the representative average groundwater concentrations were less than the General Water Quality Standards listed in 35 Ill. Adm. Code §302, except for boron, manganese, and sulfate.

Fate and Effect of Parameters Proposed for Increased Loading.

Tables 6, 7, and 8 from the August 2022 report by Hanson Professional Services, Inc. tables show the estimated mass of each parameter proposed to be discharged through the selected NPDES outfall to the Middle Fork from the ash pond dewatering activities and the proposed recovery trench discharge (the "Added Load" on each table). The tables also estimate the predicted effects of discharging the dewatering and the proposed recovery trench groundwater and demonstrates the proposed discharges will not cause exceedances of the General Use Water Quality Standards at 35 Ill. Adm. Code §302 Subpart B or increase the existing river concentrations.

The Middle Fork at this location is listed as impaired due to fecal coliform. The proposed discharges will not contain fecal coliform. Since the proposed short-term discharges would not cause exceedances of the General Use Water Quality Standards or contribute to the cause of impairment in the river, adverse impacts to the current uses of the water body are not anticipated.

Based on estimated effluent concentrations for this discharge, concentrations boron and sulfate may increase in the receiving stream. Settlement in the ponds may reduce the concentration of dissolved metals, and the receiving stream will have flow that will dilute the effluent whenever it is discharged. However, no allowed mixing was considered; limits for parameters regulated in the permit are set at the water quality standard.

Purpose and Social & Economic Benefits of the Proposed Activity.

The discharge of open water from the two ash ponds and recovery trench is necessary to complete the plant closure construction activities. Discharging through the existing NPDES outfalls will remove the waters in the shortest practicable time to comply with the closure plan schedule.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

Water Management Alternatives Considered

DMG has considered management alternatives for the dewatering and groundwater (collectively, the "waters") that could avoid or minimize increase in pollutant loading to the receiving water. In addition to assessment of potential degradation of the receiving water that could result from the discharges, an important criterion used in the alternatives analysis is the reliability of the time required to remove the waters from the ash ponds. The dewatering must be completed in a limited time frame to enable the regulatory-driven ash closure construction activities. The alternatives are summarized in Table 9 in the August 2022 report by Hanson Professional Services, Inc. and discussed in the following sections.

No Action Alternative

Closing the ash ponds in place would include installation of compacted earthen material with a geomembrane and vegetated cover system. Site preparation for installation of the cover system requires removal of open water from the ash ponds and partial removal of pore water contained in ash-filled portions of the ash ponds. Precipitation will occur during the anticipated ten-year closure process. The ash pond closure could not be achieved in the ten-year schedule without removing the waters. Therefore, the no action alternative is not feasible and is excluded from further consideration.

Mechanical Evaporation

DMG and Hanson evaluated removing the waters by mechanical evaporation for the 2019 Antidegradation Assessment. Hanson consulted with one mechanical evaporation equipment provider to discuss the feasibility of removing the ash pond waters by evaporators could each be expected to evaporate approximately 60,000 gallons per day. Multiple evaporators would be needed to remove the estimated almost 800 million gallons of waters over the five-year closure process.

Evaporation rates would be dependent upon many factors such as performance of the evaporation equipment, water make-up and chemistry, ambient temperature and humidity, solar radiation, wind, free flow of air over the ash ponds, and other factors. Evaporation could occur only in the warmer months, between approximately April and October, with the most efficient evaporation occurring in mid-summer. Under some conditions, windblown drift could deposit onto adjacent properties.

It is unlikely that ideal evaporation conditions would occur for enough duration to eliminate the estimated 800 million gallons of waters. The unpredictability of weather and unreliability of evaporation rates make this alternative infeasible to comply with the ash pond closure schedule.

Agricultural Irrigation

DMG evaluated using the ash pond waters for agricultural irrigation for the 2019 Antidegradation Assessment. The Site is located in a rural agricultural area. Water could be pumped from the ash ponds and piped to fields west of the site. Review of aerial photography does not indicate that irrigation is typically used in the vicinity of the site. It is unknown if permission could be obtained from the landowners and/or tenant farmers to utilize the irrigation rigs in their fields, and what conditions or payments may be required to obtain permission. It is likely DMG would have to compensate the farmers for at least five seasons of crops. Since the purpose of the irrigation would be to remove the waters from the ash ponds, it is likely that water would be applied at higher rates than desired for crop growth, resulting in damaged crops or diminished yields. Irrigation could probably only occur during the warmer months and would be limited to rates that do not cause surface runoff.

Agricultural irrigation of the waters would require running at least one mile of temporary piping across County Highways E2150N and 900E (Newtown Road) to the nearest fields.

DMG has not estimated the cost to negotiate permissions and install the temporary piping to the agricultural irrigation equipment. The technical obstacles and potential detrimental effects to local farms make this alternative infeasible for the proposed short-term discharge.

Land Application

DMG and Hanson evaluated land application of the ash pond waters for the 2019 Antidegradation Assessments. There is no reasonable need or feasibility to utilize the waters on site for dust control. Land-applied water would be dissipated by evaporation and infiltration. In order to avoid discharge to the receiving water, land application would need to be controlled so that surface runoff did not occur. Due to the large volume of waters to be removed, the relatively compact size of the Site, and the small area previous surfaces for infiltration, it is unlikely the waters could be eliminated in a timely manner by land application on ground surfaces without causing safety or environmental issues. Land application is infeasible to eliminate the estimated 800 million gallons of waters within the closure plan schedule.

Use ash Dewaterers in Power Generation Processes

The Vermillion Power Plant is retired and no longer in operation. There are no operational processes to use the ash pond waters. Therefore, this alternative is not feasible and is excluded from further consideration.

Discharge through NPDES Outfall

DMG and Hanson evaluated discharging the waters through an existing NPDES outfall, either the Secondary North Ash Pond and Outfall 001 or the Secondary New East Ash Pond and Outfall 003. This was the normal operation and discharge of the ash pond waters when the plant was in operation.

Table 6, Table 7, and Table 8 from the August 2022 report by Hanson Professional Services, Inc. estimates the predicted effects of discharging the unwaters, dewaterers, and recovery trench groundwater and demonstrate the proposed discharges will not cause exceedances of the chronic General Use Water Quality Standards at 35 Ill Adm. Code §302.

Pollutant loadings from the proposed ash pond closure would increase during the short-term discharges. Considering the demonstration presented in this assessment, no adverse impacts to the existing water quality and uses of the receiving water are anticipated. Pollutant loading would decrease when the short-term waters discharges are completed. This alternative eliminates the waters in the shortest reliable time and will enable the ash pond closure to be completed within the closure plan schedule.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.

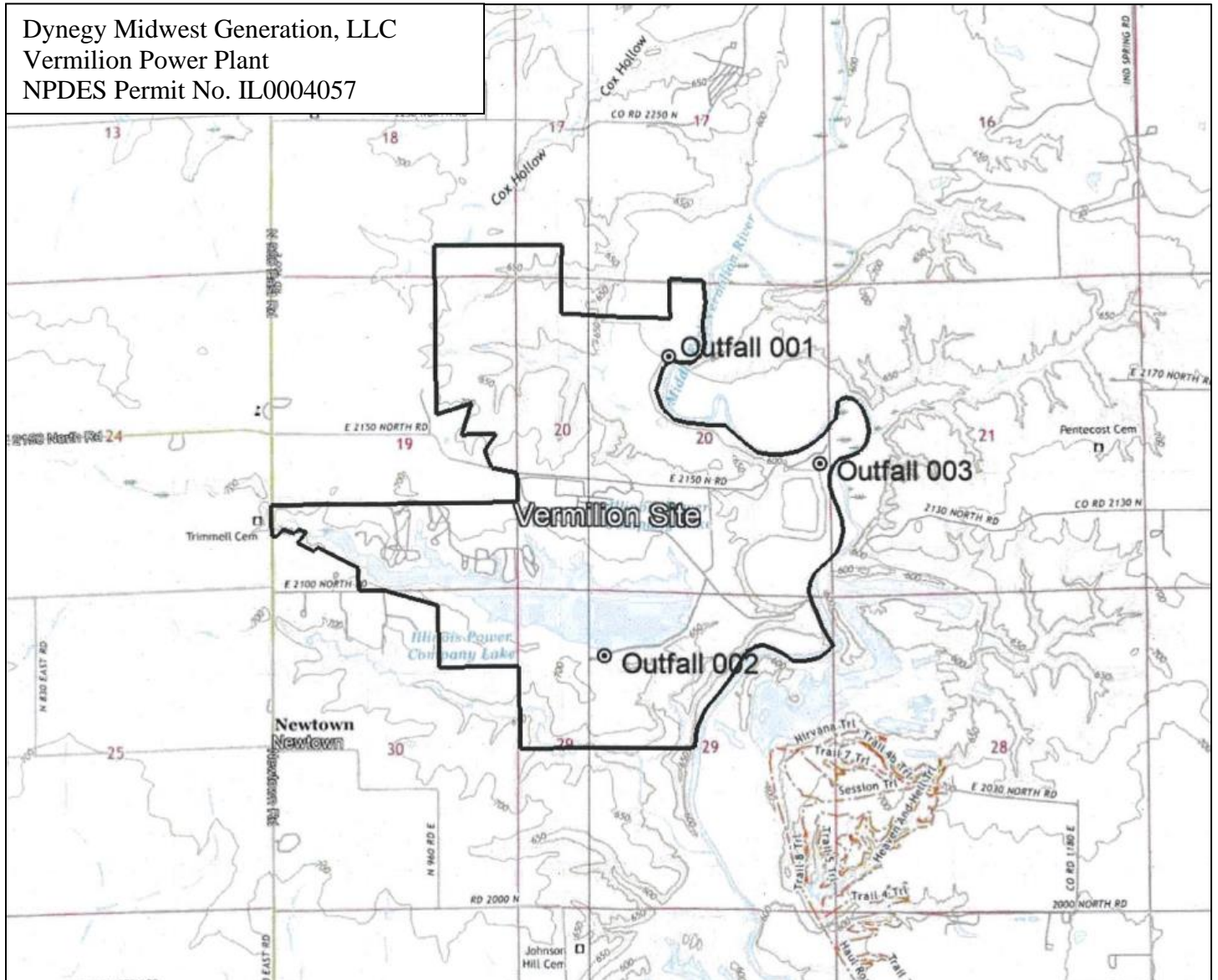
On July 15, 2022, the IDNR EcoCAT web-based tool was used (IDNR Project Number: 2300997) and indicated that there were endangered/threatened species present in the vicinity of the discharge. IDNR evaluated the submittal and determined that impacts to the protected resources are unlikely. IDNR terminated the consultation request on July 15, 2022.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time the draft permit was written. We tentatively find that the proposed activity will result in the attainment of water quality standards; that all existing uses of the receiving stream will be maintained; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity will benefit the community at large by removing of open water from the two ash ponds and recovery trench and completing the plant closure

construction activities. Comments received during the NPDES permit public notice period will be evaluated before a final decision is made by the Agency.

Dynegy Midwest Generation, LLC
Vermilion Power Plant
NPDES Permit No. IL0004057



Public Notice of Draft Permit

Public Notice Number KPM:22111601.docx is hereby given by Illinois EPA, Division of Water Pollution Control, Permit Section, 1021 North Grand Avenue East, P.O. Box 19276, Springfield, Illinois, 62794-9276 (herein Agency) that a draft National Pollutant Discharge Elimination System (NPDES) Permit Number IL0004057 has been issued under 40 CFR 124.6(d) for Dynegy Midwest Generation, LLC, 10188 East 2150 North Road for discharge into the Middle Fork Vermilion River from Vermilion Power Plant, Oakwood, Illinois, Vermilion County. The applicant is engaged in maintenance of a closed coal-fired steam electric generating facility (SIC 4911). Facility operations result in an intermittent discharge of stormwater runoff, a proposed intermittent discharge of ponded and subsurface free liquids associated with CCR surface impoundment closure activities, and a proposed discharge of groundwater collected by a future groundwater collection trench via Outfalls 001 and 003. Facility operations also result in an intermittent discharge of collected stormwater runoff overflow from the on-site reservoir via Outfall 002.

The application, draft permit and other documents are available for inspection and may be copied at a cost of 25 cents per page at the Agency between 9:30 A.M. and 3:30 P.M. Monday through Friday. A Fact Sheet containing more detailed information is available at no charge. For further information, call the Public Notice Clerk at 217/782-0610.

Interested persons are invited to submit written comments on the draft permit to the Agency at the above address. The NPDES Permit and Joint Public Notice numbers must appear on each comment page. All comments received by the Agency not later than 30 days from the date of this publication shall be considered in making the final decision regarding permit issuance.

Any interested person may submit written request for a public hearing on the draft permit, stating their name and address, the nature of the issues proposed to be raised and the evidence proposed to be presented with regards to these issues in the hearing. Such requests must be received by the Agency not later than 30 days from the date of this publication.

If written comments and/or requests indicate a significant degree of public interest in the draft permit, the permitting authority may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing.

NPDES Permit No. IL0004057

Illinois Environmental Protection Agency

Division of Water Pollution Control

1021 North Grand Avenue East

Post Office Box 19276

Springfield, Illinois 62794-9276

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

Reissued (NPDES) Permit

Expiration Date:

Issue Date:

Effective Date:

Name and Address of Permittee:

Dynegy Midwest Generation, LLC
1500 Eastport Plaza Dr.
Collinsville, IL 62234

Facility Name and Address:

Dynegy Midwest Generation, LLC
Vermilion Power Plant
10188 East 2150 North Road
Oakwood, Illinois 61858
(Vermilion County)

Discharge Number and Name:

001 North and Old East Ash Pond System Discharge
002 Reservoir Overflow
003 New East Ash Pond Discharge

Receiving Waters:

Middle Fork Vermilion River

In compliance with the provisions of the Illinois Environmental Protection Act, Title 35 of Ill. Adm. Code, Subtitle C and/or Subtitle D, Chapter 1, and the Clean Water Act (CWA), the above-named permittee is hereby authorized to discharge at the above location to the above-named receiving stream in accordance with the standard conditions and attachments herein.

Permittee is not authorized to discharge after the above expiration date. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit the proper application as required by the Illinois Environmental Protection Agency (IEPA) not later than 180 days prior to the expiration date.

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEL:KPM:22111601.docx

NPDES Permit No. IL0004057

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day		CONCENTRATION		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>DAF (DMF)</u> <u>LIMITS mg/l</u>						
<u>Outfall 001</u> – North and Old East Ash Pond System Discharge (Intermittent Discharge)						
The discharge consists of:						
1. Stormwater Runoff*						
2. Poned Free Liquids and Subsurface Free Liquids from CCR Impoundment Closure Activities						
3. Groundwater Collection Trench Water						
Flow (MGD)	See Special Condition 1.				1/Week**	Estimate
pH	See Special Condition 2.				1/Week**	Grab
Total Suspended Solids			15.0	30.0	1/Week**	Grab
Oil/Grease			15.0	20.0	1/Week**	Grab
Sulfates				2000	1/Week**	Grab
Boron			7.6	40.1	1/Week**	Grab
Iron (Total)			2.0	4.0	1/Week**	Grab
Ammonia						
Mar-May, Sep-Oct			1.5	5.0	1/Week**	Grab
Jun-Aug			0.9	4.8		
Nov-Feb			2.7	4.2		
Mercury	See Special Condition 10.			12 ng/L***	1/Week**	Grab

*See Special Condition 7.

**Sampling only needs to occur when discharging.

***On a 12-month rolling average.

Outfall 002 – Reservoir Overflow
(Intermittent Discharge)

The discharge consists of:

1. Stormwater Runoff*

Flow (MGD)	See Special Condition 1.				1/Month**	Estimate
pH	See Special Condition 2.				1/Month**	Grab
Total Suspended Solids			15.0	30.0	1/Month**	Grab
Oil/Grease			15.0	20.0	1/Month**	Grab

*See Special Condition 7.

**Sampling only needs to occur when discharging.

NPDES Permit No. IL0004057

Effluent Limitations and Monitoring

1. From the effective date of this permit until the expiration date, the effluent of the following discharges shall be monitored and limited at all times as follows:

PARAMETER	LOAD LIMITS lbs/day DAF (DMF)		CONCENTRATION LIMITS mg/l		SAMPLE FREQUENCY	SAMPLE TYPE
	30 DAY AVERAGE	DAILY MAXIMUM	30 DAY AVERAGE	DAILY MAXIMUM		
<u>Outfall 003</u> – New East Ash Pond Discharge (Intermittent Discharge)						
The discharge consists of:						
1. Stormwater Runoff*						
2. Poned Free Liquids and Subsurface Free Liquids from CCR Impoundment Closure Activities						
3. Groundwater Collection Trench Water						
Flow (MGD)	See Special Condition 1.				1/Week**	Estimate
pH	See Special Condition 2.				1/Week**	Grab
Total Suspended Solids			15.0	30.0	1/Week**	Grab
Oil/Grease			15.0	20.0	1/Week**	Grab
Sulfates				2000	1/Week**	Grab
Boron			7.6	40.1	1/Week**	Grab
Iron (Total)			2.0	4.0	1/Week**	Grab
Ammonia						
Mar-May, Sep-Oct			1.5	5.0	1/Week**	Grab
Jun-Aug			0.9	4.8		
Nov-Feb			2.7	4.2		
Mercury	See Special Condition 10.			12 ng/L***	1/Week**	Grab

*See Special Condition 7.

**Sampling only needs to occur when discharging.

***On a 12-month rolling average.

Special Conditions

Page 4

SPECIAL CONDITION 1. Flow shall be measured in units of Million Gallons per Day and reported as a monthly average and a daily maximum on the discharge monitoring report.

SPECIAL CONDITION 2. The pH shall be in the range 6.0 to 9.0. The monthly minimum and monthly maximum values shall be reported on the DMR form.

SPECIAL CONDITION 3. Samples taken in compliance with the effluent monitoring requirements shall be taken at a point representative of the discharge, but prior to entry into the receiving stream.

SPECIAL CONDITION 4. There shall be no discharge of polychlorinated biphenyl compounds.

SPECIAL CONDITION 5. The Permittee shall record monitoring results on Discharge Monitoring Report (DMR) electronic forms using one such form for each outfall each month.

In the event that an outfall does not discharge during a monthly reporting period, the DMR Form shall be submitted with no discharge indicated.

The Permittee is required to submit electronic DMRs (NetDMRs) instead of mailing paper DMRs to the IEPA unless a waiver has been granted by the Agency. More information, including registration information for the NetDMR program, can be obtained on the IEPA website, <https://www2.illinois.gov/epa/topics/water-quality/surface-water/netdmr/Pages/quick-answer-guide.aspx>.

The completed Discharge Monitoring Report forms shall be submitted to IEPA no later than the 28th day of the following month, unless otherwise specified by the permitting authority.

Permittees that have been granted a waiver shall mail Discharge Monitoring Reports with an original signature to the IEPA at the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attention: Compliance Assurance Section, Mail Code # 19
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

SPECIAL CONDITION 6. If an applicable effluent standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the NPDES Permit, the Agency shall revise or modify the permit in accordance with the more stringent standard or prohibition and shall so notify the permittee.

SPECIAL CONDITION 7. The Agency has determined that the effluent limitations in this permit constitute BAT/BCT for storm water which is treated in the existing treatment facilities for purposes of this permit reissuance, and no pollution prevention plan will be required for such storm water. In addition to the chemical specific monitoring required elsewhere in this permit, the permittee shall conduct an annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity, and determine whether any facility modifications have occurred which result in previously-treated storm water discharges no longer receiving treatment. If any such discharges are identified the permittee shall request a modification of this permit within 30 days after the inspection. Records of the annual inspection shall be retained by the permittee for the term of this permit and be made available to the Agency on request.

SPECIAL CONDITION 8. Standard Condition 11(a) of Attachment H is rewritten as follows:

An application submitted by a corporation shall be signed by a principal executive officer of at least the level of vice president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the application form originates. In the case of a partnership or a sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively. In the case of a publicly owned facility, the application shall be signed by either the principal executive officer, ranking elected official, or other duly authorized employee.

SPECIAL CONDITION 9. Standard Condition 11(b) of Attachment H is rewritten as follows:

Pursuant to 40 CFR 122.22(b) all reports required by permits, other information requested by the Director, and all permit applications submitted for Group II storm water discharges under 122.2(b)(3) shall be signed by a person described in 40 CFR 122.22(a), or by a duly authorized representative of that person. A person is duly authorized representative only if:

Special Conditions

Page 5

1. The authorization is made in writing by a person described in paragraph (a) of this section;
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and;
3. The written authorization is submitted to the Director.

SPECIAL CONDITION 10. All samples for mercury must be analyzed by EPA Method 1631E using the digestion procedure described in Section 11.1.1.2 of 1631E, which dictates that samples must be heated at 50°C for 6 hours in a bromine chloride (BrCl) solution in closed vessels.

SPECIAL CONDITION 11. The Permittee shall monitor Outfalls 001 and 003 for the following parameters on a weekly basis during periods of dewatering activity and on a semiannual basis once all dewatering associated with CCR impoundment closure activities has been completed. The Permit may be modified at any time with public notice to establish effluent limitations if appropriate, based on the information obtained through sampling. The samples collected during dewatering activities shall be 8-hour effluent composite samples except as otherwise specifically provided below. Samples collected outside of dewatering activities shall be grab samples. All sample results shall be submitted on the DMRs to IEPA. The parameters to be sampled and the minimum reporting limits to be attained are as follows:

<u>STORET CODE</u>	<u>PARAMETER</u>	<u>MINIMUM REPORTING LIMIT</u>
01097	Antimony	5.0 µg/L
01002	Arsenic	0.05 mg/L
01007	Barium	0.5 mg/L
01022	Boron	0.01 mg/L
01027	Cadmium	0.001 mg/L
00940	Chloride	1.0 mg/L
01034	Chromium (Total)	0.05 mg/L
01042	Copper	0.005 mg/L
00718	Cyanide (grab) (available* or amendable to chlorination)	5.0 µg/L
00720	Cyanide (grab not to exceed 24 hours) (total)	5.0 µg/L
00951	Fluoride	0.1 mg/L
01046	Iron (Dissolved)	0.5 mg/L
01051	Lead	0.05 mg/L
01055	Manganese	0.5 mg/L
01067	Nickel	0.005 mg/L
32730	Phenols (grab)	0.005 mg/L
09501	Radium 226	
11501	Radium 228	
01147	Selenium	0.005 mg/L
01077	Silver (Total)	0.003 mg/L
00945	Sulfate	10 mg/L
10159	Thallium	5.0 µg/L
01092	Zinc	0.025 mg/L

*USEPA Method OIA-1677

Unless otherwise indicated, concentrations refer to the total amount of the constituent present in all phases, whether solids, suspended, or dissolved, elemental or combined, including all oxidation states.

Twelve months from the date of commencement of dewatering discharges, the Permittee must submit a summary report of dewatering activities with tabulated data for all samples collected pursuant to the requirements of this special condition. Based on the contents of the report, the Agency may modify the permit with public notice to alter effluent limitations or monitoring frequencies as necessary.

Two years after the commencement of dewatering discharges, or if ash impoundment dewatering has permanently ceased, the Permittee may request a modification of the permit to change or reduce the sampling frequency and/or monitoring requirements. In addition, the Agency may choose to modify this permit based on the results of this sampling to include additional limits, monitoring requirements, or other conditions. Any such modification will be public noticed, with opportunity for comment.

Special Conditions

Page 6

SPECIAL CONDITION 12. The permittee shall monitor the five performance monitoring wells around the east ash pond on a quarterly basis. Each sample shall be analyzed for boron, manganese, pH, sulfates, and total dissolved solids, with the groundwater elevation being noted in each well at the time of sampling. Sample results shall be submitted to the Agency at the address in Special Condition 5 within 60 days of the quarterly sampling date.

